Remembrance of Research Past in Hope of Research Future

A review of

Temperament as a Regulator of Behavior: After Fifty Years of Research
by Jan Strelau

Reviewed by
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One of the earliest and most enduring personality theories originated with the early Greeks. Conceived by Galen on the basis of the four humors identified by Hippocrates (Kagan, Snidman, Arcus, & Reznick, 1994), this view of human personality determined by four stable temperament traits has influenced psychological thinking for centuries. For example, one of Pavlov's lesser known theories was based on his belief that the temperament traits proposed by Galen could be explained by properties of the central nervous system.

In Temperament as a Regulator of Behavior: After Fifty Years of Research, Jan Strelau chronicles his courageous 50-year-long investigation of temperament, beginning
with tests of Pavlov's physiological assumptions about temperament and culminating in an influential psychological theory of temperament, the regulative theory of temperament (RTT). Moving beyond Pavlov's focus on the central nervous system to incorporate the role of subcortical structures, including the reticular activation system, the autonomic system, and the endocrine system, in understanding temperament, Strelau's work highlights the role of temperament as "a general tendency toward specific behaviors" (p. 49).

Strelau's book is a testament to the power of his own temperament that enabled him to persist and flourish as a Polish researcher under repressive regimes that limited access to knowledge, international travel, financial support, and even threatened his survival. The book is valuable in at least three important ways. First, Strelau's story offers an inspirational message for novice as well as seasoned researchers. His description of his struggle for contact with researchers in the West encourages researchers with economic advantages to support the careers of promising researchers working in repressive political and economic circumstances. Second, in retelling his personal story, Strelau offers an exemplary model for novice researchers on how to craft a successful career through dedication to a systematic program of research with or without overwhelming obstacles. Third, his systematic recording of the development of his research program offers a wealth of ideas for further research on temperament.

As evidence of the importance of this book, two of the foremost researchers on temperament have offered strong testimony to its significance: Robert Plomin in his foreword to the book and Mary Rothbart in her endorsement on the book's back cover. Despite these important endorsements, Lee Anna Clark and David Watson (1999) in their review of temperament research pointed out that Strelau's research program has not been widely influential in the United States, although his work has sparked significant experimental research in Europe. Clark and Watson predicted that Strelau's temperament theory would soon be replaced by more complex models derived from work in cognitive and affective neuroscience.

The question remains whether Strelau's compelling description of the development of his regulative theory of temperament in this new book will offer insights that provide rich hypotheses for the development of those more complex models. As Plomin explains in his foreword, Strelau "has bequeathed a theory that cries out for neuroscience research using modern techniques of neuroimaging" (p. viii).

Lessons Learned: The Power of Explanatory Theory, Persistence, and Open-Mindedness

As Plomin points out in the foreword, Strelau's research has been guided by a strong explanatory focus that is missing in theories of temperament in the United States. The lack
of such theories generally in psychological research in the United States appears, at least in part, to be the legacy of the antitheoretical dominance of behaviorism and the pragmatism of researchers who failed to heed Kurt Lewin's (1951) dictum, “There is nothing so practical as a good theory” (p. 169).

Careful study of Strelau's use of his explanatory theory to direct his program of research over 50 years and the example of his openness to self-criticism revealed in this book offer an antidote to these tendencies. The most notable example of Strelau's systematic assessment of theoretical propositions, open-mindedness, and self-criticism is seen in his modifying of his belief in the genetic determinism of temperament. As research results began yielding tentative evidence of changes in temperament over time, he responded with an increasing appreciation of the role of the environment in modifying temperament traits. However, in assessing his work, he notes that the antecedents of such change are unclear and admits that the lack of empirical tests of the stability–changeability of temperament through longitudinal research “is where the shortcomings of the RTT are most evident” (p. 226).

Readers will see that, despite this shortcoming, the unwavering dedication of Strelau and his colleagues to testing the 10 propositions of his RTT has been far reaching. Strelau describes research focusing on adolescents and adults representing diverse groups, including twins, people who are sick, and people who are disabled, as well as normative groups, and occasionally children and animals. He explains how they have incorporated diverse theoretical perspectives in their research in addition to Pavlov's, including the behavior genetic paradigm, activity theory, arousal theory, and Hans Eysenck's (1991) biosocial approach to personality and have conducted research in multiple disciplines, including psychophysiology and biochemistry as well as psychology. Strelau's description of how the construction of new research inventories advanced his research program as old ones were found lacking in reliability and validity offers further evidence of the value of systematic study and openness to self-criticism.

In summary, this book should appeal to graduate students and psychologists interested in understanding the factors that contribute to the development of successful research practice, and it should be particularly useful to researchers interested in temperament as a self-regulative process. The research and theory presented in recent handbooks of research on self-regulation (e.g., Baumeister & Vohs, 2004; Gross, 2007) demonstrate the crucial role of temperament in self-regulation. Strelau's focus on the regulative aspect of temperament offers important insights for further research to advance our understanding of how temperament affects our actions, especially in stressful circumstances.


